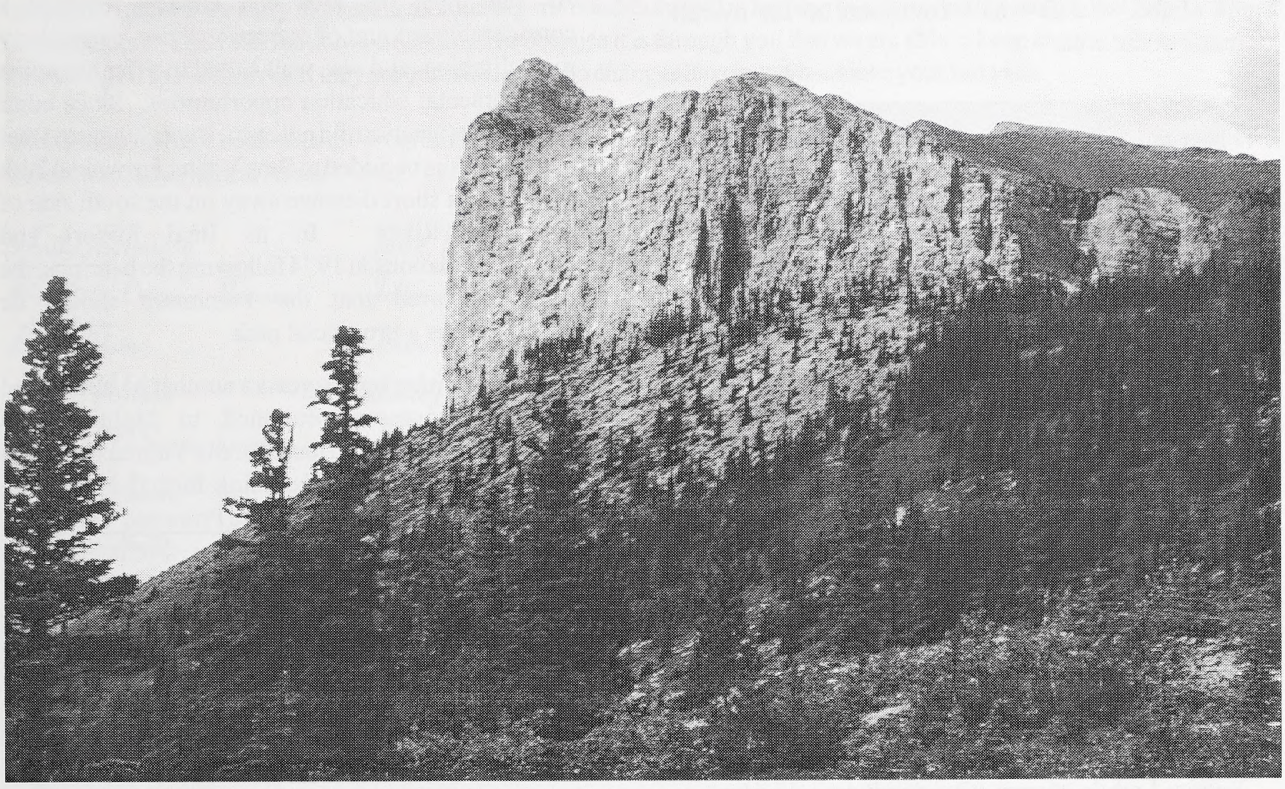
The Steward

Newsletter of Alberta's Natural and Protected Areas and the People Who Care for Them.

Naturally Yours

Issue 38 Summer 1997



Yamnuska Natural Area

On May 12, 1997, the Government of Alberta announced that the Yamnuska Natural Area had received official designation under the Special Places program. This designation of 3,688 acres will preserve the exceptional beauty and diversity of an area long known as one of the jewels of the Bow Valley.

The Yamnuska Natural Area is located north of the Bow River at the eastern edge of the Rocky Mountains between Cochrane and Canmore. It extends from Highway 1A north to the height of land along the summits of Mount John Laurie (Yamnuska) and Loder Peak, and is bounded on the east by the Stoney First Nations' Morley Reserve. A complex geological history combines with climatic factors to produce a rich and varied mix of habitats.

Elements of the montane, sub-alpine ecoregions are all present along with vegetation more typical of the boreal foothills.

Geological features include a classic exposure of the McConnell Thrust Fault above which the sheer limestone cliffs of Mt. Yamnuska have been superimposed on a younger, sandstone foundation. A great variety of glacial land forms such as drumlins, eskers, kettles and kames are also well represented and easily accessible.

Grasslands, small lakes and ponds, fens, scree slopes, beaver ponds and rock outcrops are interspersed amongst forests of lodgepole pine, douglas fir, white spruce and trembling aspen, including a particularly lush "aspen jungle" which fans out from

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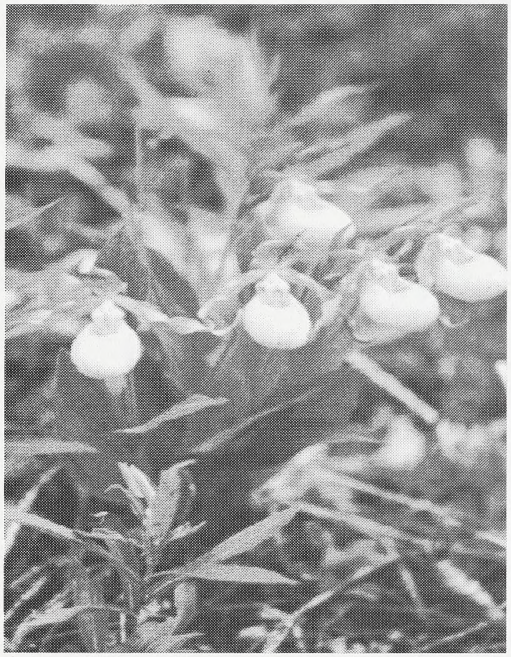
the base of the mountain. Associated with these habitats are a wide range of plant and animal species, some of which are rare or uncommon.Unusually large concentrations of yellow lady's-slipper occur here and it is one of the few places in the world where a rare white form of this orchid has been found. Spotted Frog, Hooded Merganser and Calliope Hummingbird are some of the wildlife which contribute to the overall richness of the area.



Yellow Lady's-slipper *(Cypripedium calceolus)*

In identifying the provincial significance of the Yamnuska Natural Area, a 1991 report titled: Environmentally Significant Areas in the Bow Corridor, prepared by Sweetgrass Consultants for the Municipal District of Bighorn, referred to the presence of "one of a handful of extensive and significant calcareous spring-fen complexes in the mountains of Alberta". The report concluded that "the productivity and diversity of habitats, plants and animals and the mixing of montane and boreal plants and animals appears to be unique in southern Alberta" (p. 40).

Attention was first focussed on the Yamnuska area in 1973 during extensive public hearings held by the Environment Conservation Authority (E.C.A.) on Land Use and Resource Development in the Eastern Slopes.

At the same time, the Banff-Canmore based Bow Valley Naturalists (BVN), with the support of other groups and individuals, proposed that the area be protected. BVN presented the case that the superb natural qualities of the Yamnuska were worthy of preservation.

At that time, the area had already received a considerable amount of recreational use, particularly rock climbing, and was well suited to offer abundant environmental education opportunities. Since other forms of designation did not exist, it was suggested that the Yamnuska be added to Bow Valley Provincial Park which lies a short distance away on the south side of the Bow River. In its final Report and Recommendations in 1974 following the hearings, the ECA concurred that the Yamnuska should be established as a provincial park.

Through the intervening years a number of studies and planning processes continued to highlight the outstanding natural attributes of the Yamnuska and to reinforce the merit of providing formal protection. The Biophysical Inventory of the Proposed Yamnuska Natural Area conducted in 1989 by Alberta Forestry, Lands and Wildlife concluded that: "No further studies are necessary to demonstrate the value of this area for conservation, education and recreational purposes" (p. iii).

Official designation of the Yamnuska Natural Area is an important step in the right direction, however there is a need to proceed with the preparation of a Management Plan to formally define the principles which will govern the types and amount of human activity. Recent increases in the impacts from horse grazing and motorized vehicles are issues that need to be addressed.

With no shortage of willing volunteers - from the conservation and climbing communities and others - to act as Stewards of the Yamnuska Natural Area, it is vital that firm guidelines be put in place to sustain Yamnuska's natural values.The unique landscape of the Yamnuska and appropriate human experiences associated with it are deserving of great care and consideration.

1996 Protected Areas Recognition Awards

It is time to recognize our volunteer stewards for the valuable contribution they make to the Protected Areas Program. The inspection reports are a key element in monitoring site conditions and in helping to ensure that the natural integrity of the site is maintained. This information is essential to us because it is through you that we are able to keep abreast of what is occurring on the sites, even if they are undisturbed or no changes have occurred since your last visit.

Stewards who have been with the program for more than two years, and have consistently sent in inspection reports, have been awarded a Natural Areas T-shirt. The following are stewards who qualified for the two year award:

Anita Crunican
Bob & Doreen Loewen
Brent Toma
Bruce Wilson
Curtis & Sonja Evans
Dan Helmers
Diana Keith
Gord Dodd
Howard Fix
Iris Morgan
Julie Morgan
John Lovie
Kate Reeves
Lesley Curthoys
Lyle Anderson
Mark Sherrington
Micheal Sherman
Nonie Sundstrom
Rusty Brown
Scott Morgan
Stacey Morgan
Alpine Club of Canada (Edmonton Section)
Big Hill Blazers Junior Forest Wardens
Calgary 85th Scout Group
Edmonton Bird Club
Red Deer River Naturalists
Stony Plain Fish & Game Association
Upper Bow Valley Fish & Game Association

Stewards who have been with the program for more that five years, and have consistently sent in inspection reports, have been awarded a Natural Areas sweatshirt. The following are stewards who qualified for the five year award:

Brian Breneman
Bruce Morrison
Colin Wenger
Don Morden
Earl & Doris Cairns
Gary Lukawesky
Helmut Hugelschaffer
Ivan Shukster
Lee Finstad
Patricia Stansfield
Beaverhill Bird Observatory
Big Hill Blazers Junior Forest Wardens
Bruderheim Natural Area Society
Fort Saskachewan Naturalist Society
J.J. Collett Foundation
Upper Bow Valley Fish & Game Association

Thank you for a job well done!

CONSERVATION EASEMENT LEGISLATION

On September 1, 1996, Bill 39, the Environmental Protection and Enhancement Amendment Act came into effect. One provision of this Act enables landowners to enter into voluntary agreements with a second party for the purpose of securing property for long-term conservation. These agreements, called conservation easements, will provide an important option to landowners who wish to protect parcels of their property for specific purposes set out in the legislation.

To help better understand this new legislation the Conservation Easement Guide for Alberta has been produced by the Environmental Law Centre , written by Arlene Kwasniak. The guide provides answers to some common questions about conservation easements.

What is a conservation easement?
A conservation easement is a legal agreement a landowner makes to establish conditions on the land use of his property. A landowner grants this easement to an appropriate second party such as a conservation organization, a municipality or government agency. This second party holds this easement and monitors and enforces the conditions of this easement over time. The land title remains with the owner. The easement is registered against the land title and applies to future owners of the property.

Why grant a conservation easement?
People grant conservation easements to protect their land from inappropriate development while retaining private ownership. By granting an easement in perpetuity, the owner may be assured that the resource values of his property will be protected indefinitely, no matter who the future owners are.

For what purposes may a conservation easement be granted?
The purposes a conservation easement may be granted for are: the protection, conservation, and enhancement of the environment including biological diversity; the protection, conservation, and enhancement of natural scenic or aesthetic values; and where consistent with either of the above, for recreational, open space, or environmental education use or use for research or scientific studies of natural ecosystems.

Who can grant an easement and to whom can they grant it?
Any owner of property may grant an easement. This includes private citizens, corporations, municipalities, and the government.

An easement may be granted to the provincial government, local municipality or a qualified organization.
To qualify, an organization must be registered under the Alberta Societies Act, have charitable status, be able to acquire and hold an interest in land for the purpose of conservation, and have provisions to dispose of easements should the organization ever wind up its operations.

How long does an easement last?
An easement can be written so that it lasts forever, (i.e., perpetual easement) or an easement may be written for a specified period of years. Only donations of perpetual easements can qualify for income tax benefits.
A perpetual easement runs with the land that is, the original owner and all subsequent owners are bound by the restrictions of the easement. The conservation easement is recorded at a Land Titles Office so that all future owners learn about the restrictions when they obtain title records.

How are easements established?
Conservation easements are negotiated between the granting landowner and holding conservation organization, a municipality or government agency. The landowner and prospective easement holder identify the rights and restrictions on land uses that are necessary to protect the property. These rights and restrictions are spelled out in the conservation easement agreement. The agreement is registered at a Land Titles Office by providing a copy of the agreement and a statutory declaration evidencing the fact that the requirements of the legislation have been met. The local municipality receives 60 days prior notice to the conservation easement being registered at a Land Titles Office.

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Who can enforce an easement?
The landowner, the holder of the conservation easement, and/or a third party that has been designated by the grantor may enforce the conservation easement. All remedies available to the Court will be available to enforce conservation easements. In addition, arbitration will be available.

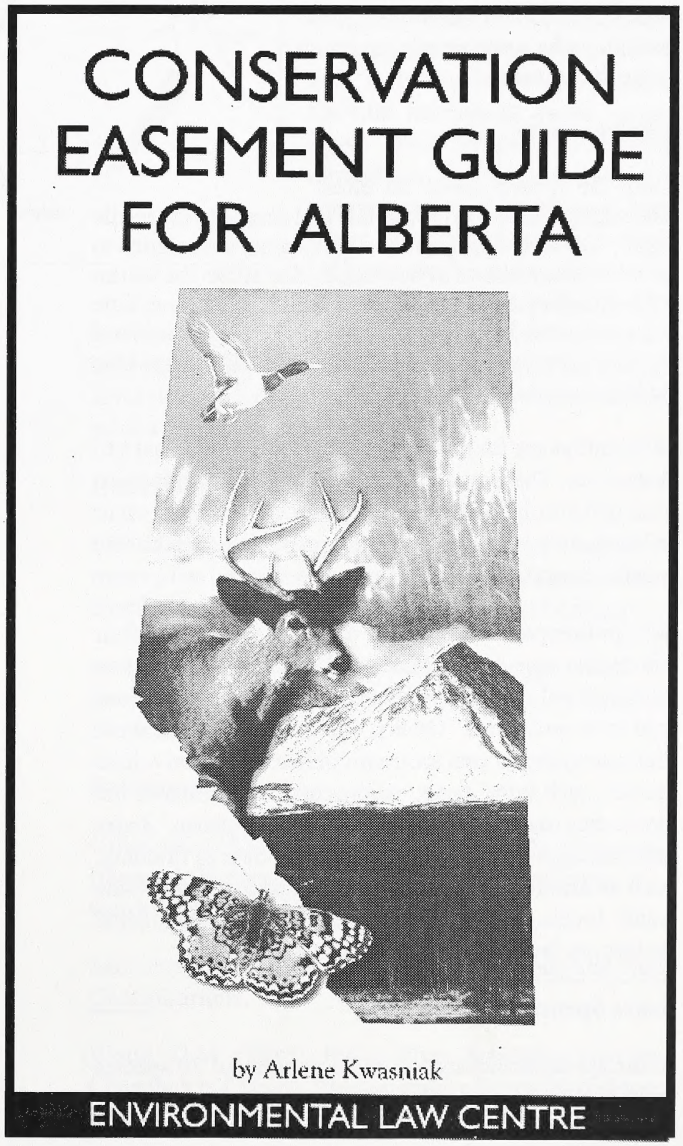
Can easements be modified and terminated?
Any modifications and/or termination of a conservation easement requires the agreement of the easement holder and current landowner. The change must be registered at a Land Titles Office.
Conservation easements can be modified or discharged by a court if the easement is in conflict with a statutory plan or land-use bylaw and the modification or termination is in the public interest.
If it is in the public interest, the Minister of Environmental Protection may modify or discharge any conservation easement.

Must an easement allow public access?
Landowners who grant conservation easements make their own choice about whether to open their property to the public.

What are some of the implications to the granting landowner?
Conservation easements can be sold, donated or bequeathed.
If the easement is sold to the holding organization, the landowner will receive payment, less than the full market value of the property since the owner retains title and is only selling limited rights.
If the easement is donated, the transaction may qualify as a charitable donation, providing benefits to the grantor's personal income tax.
If the conservation easement is bequeathed, the heirs may benefit from a reduced inheritance tax.
A conservation easement may lower the value of the land because the easement restricts the ability of the landowner to develop the property to its fullest economic potential. Or, an easement may increase the value of the property, if, for example, it greatly enhances the scenic or recreational value of the property.
The value of the property will be determined by the market. If a conservation easement reduces the development potential of the property, it may reduce the level of assessment and the amount of the owner's property taxes.

For information about the new legislation, contact Brian Free, Alberta Environmental Protection at (403) 427-0047.

For a copy of the "Conservation Easement Guide of Alberta" ($14.95 + *G.S.T.*) contact the Environmental Law Centre at (403) 424-5099 (Fax: 424-5133), toll free at 1-800-661-4238, or e-mail at elc@web.net.

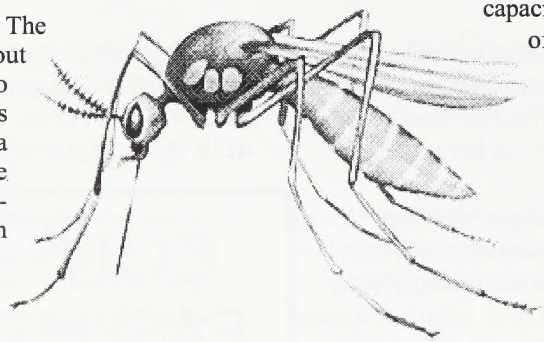


The Insect "Vampire"

by Kristy Nicol

In the cool of the evening, or even in the heat of the day there is a vicious insect that comes out to drink our blood. We are left with unpleasant reminders in the form of ugly red swellings, often accompanied by intense itching. "It" is the mosquito.

So what attracts the mosquito to us? The carbon dioxide that we breathe out directs the almost-blind mosquito to us. When within range, sight takes over and the mosquito hones in on a biting location. Other attractants are perspiration and dark clothing, explaining why some people get bitten more than others.



The Mosquito

Only the female mosquito bites.
She requires blood from animals and people to lay fertile eggs. Her mouthpart, called a proboscis, is designed to help her make a meal of our blood. She sticks the victim with this sharp tube to draw out blood. At the same time she also injects her saliva. This aids in thinning the blood so it is easier to drink. The protein in the saliva causes the itching reaction.

Mosquitoes are found all over the world, from Alaska to Antarctica. There are approximately 2700 known species, arranged into thirty-four genera. About 130 of these occur in North America, with 60 of them present in Canada. The most common genus in Edmonton is *Aedes*.

Mosquitoes pass through four major phases during their life cycle: egg, larva, pupa, and adult. Most species complete only one cycle, or generation, annually, and are said to be univoltine. Others, which can complete more than one cycle per year are multivoltine. When univoltine species, such as the *Aedes*, reach a certain point in their life cycle, they must enter a resting stage, or diapause. *Aedes* lay their eggs in low lying areas susceptible to flooding, such as dried-out pools. The eggs then hatch when the water levels, temperatures, and other environmental factors are favorable for the particular species.

Aedes Spencerii

In the spring in Edmonton and area, around 20 species hatch in ditches and pools following the snow-melt.

Most of the spring adult *Aedes* will not produce more biting adults until the following spring with the exception of one species, *Aedes spencerii.* They have the ability to produce up to three or four generations in a season. The summer active *Aedes*, with their heightened reproductive capacity, faster generational time (because of warmer water temperatures) and greater capacity to disperse makes them a much greater problem than the spring species and a greater challenge to control. *Aedes spencerii* is also one of the more annoying species of mosquito because of its tendency to be active during the day, even in open short grass areas under hot, sunny conditions.

Control Programs

Edmonton's mosquito control program focusses on the treatment of *Aedes* breeding sites throughout a 1700 square kilometer area. The program extends into the surrounding counties to help create a buffer against mosquitoes moving in from outside the city. Pesticide applications can only be applied during the first phases of mosquito development since later they are no longer susceptible to treatment. Pesticide applications are also restricted by windy or rainy weather. Approximately 5% of the outer area is not treated because private land owners may refuse due to noise-sensitive farming operations, beehives or other environmental concerns.

1997 Spring Efforts

High water levels this spring resulted in moving water which cannot be treated. Since 1995, which was the lowest mosquito activity year recorded in Edmonton, we saw a return to relatively normal mosquito levels. High snowmelt this spring resulted in increased breeding habitat and consequently higher production by the spring *Aedes.* However, treatments against spring *Aedes* alone have increased 12% from '95 to '96 and a further 58% increase from '96 to '97.

The city's control methods achieve over 90% reduction of nuisance *Aedes* which develop in the treatable breeding sites.

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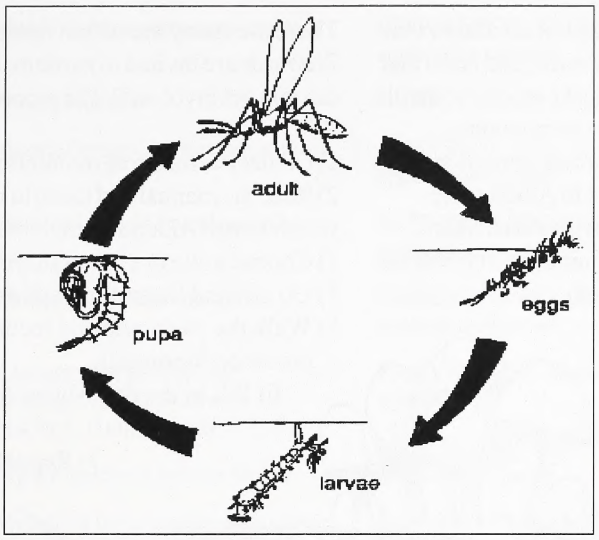
What can be done to protect us?

Recently, a company has been marketing a "mosquito repellent plant" that produces citronella. Citronella oil is produced by a number of different plants, and at relatively high concentrations, is repellent to mosquitoes. There is, at present, no proof that enough Citronella is released by a stationary plant to repel mosquitoes. Most likely, the plant would have to be physically damaged in order to release enough citronella; and the effect would be very short lived.



Other ideas on how to control mosquito numbers have been shown to be ineffective. Dietary studies indicate that mosquitoes are insignificant in the diet of the purple martin (*Progne subis*), a small bird which was once thought to eat large quantities of them. Studies of bat stomachs show beetles as their dominant food source. Ultraviolet or black lights and sonic devices have proven to be an ineffective control method.

Repellents applied to the skin and clothing will prevent mosquito bites for one to five hours, depending on the person, type and density of mosquito, and the type and percent of active ingredient in the repellent. The most effective preventative measure from being bitten is bug spray containing N, N-Diethyl-m-toluamide (Deet). Deet is a very effective repellent but it should not be used indiscriminately as severe allergies may develop. As a precautionary measure, repellents with 50% or more Deet should not be used on children. Bug sprays containing 10 to 20 percent Deet work just as well but do not last long. Avon Skin-So-Soft is also widely used as a mosquito repellent but it is not registered or labelled as such.

To prevent the development of breeding sites remove old tires, buckets, tin cans, glass jars, broken toys and other water-catching devices. Change bird baths and wading pools once or twice a week; clean out roof gutters holding stagnant water; and place tight covers over cisterns, cesspools, septic tanks, barrels, and tubs where water is stored.

Such efforts reduce the amount of insecticide that is needed to control mosquito larvae and adults. This helps to control mosquito populations on properties that the city may not be able to spray as a result of restrictions or location of the property.

Update

Resumption of normal daytime temperatures following the May 21 snow storm this year resulted in the biting activity of *Aedes spencerii* being drastically reduced in Edmonton and surrounding areas. However, increased water levels caused the first hatches of *Aedes vexans* eggs. Ditch hatches were treated throughout the program area but this was not required in off-road sites where hatches were largely controlled by residual activity of the spring campaign. As one battle finishes, the next one begins. It is a full time seasonal effort from the city and areas to control the mosquito populations to a level at which they no longer constitute a biting nuisance or pose a major health problem.

Conclusion

Contrary to popular belief that vampires do not exist, many of us have the raised, red, irritations to prove that a smaller, insect type of vampire exists, called the mosquito.

Article written by Kristy Nicol in conjunction with Chris Saunders from The City of Edmonton Forestry & Environmental Services.

References

Gillet, J.D. (1972), The Mosquito: Its Life, Activities, and Impact on Human Affairs, Doubleday & Company, Inc., Garden City, New York.

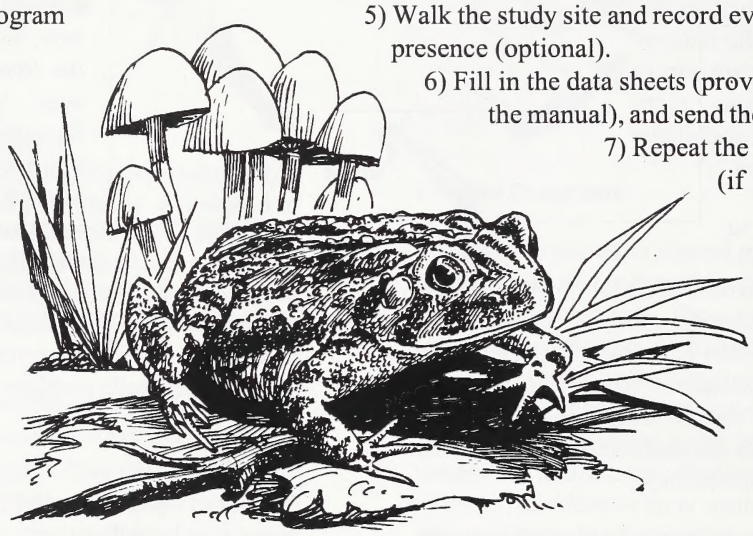
Saunders, Chris (1997) Update On Mosquitoes And Their Control, article.

Wood, D.M. (1985), Biting Flies Attacking Man and Livestock in Canada, Biosystematics Research Institute, Ottawa, Ontario.

Croaks and Trills - An Introduction to Alberta's Amphibian Monitoring Program

by Lisa Takats

Amphibians . . . those wonderful wetland creatures that inhabit many ponds, sloughs, bogs, streams, and lakes that we visit. With the wet spring this year, the croaks and trills of frogs and toads can be heard almost everywhere. Concern has been expressed over declines in many species of amphibians around the world. Here in Alberta, the Northern Leopard Frog (*Rana pipiens*) is absent from most of its former range, and the remaining populations are greatly reduced. The Alberta Amphibian Monitoring Program was set up to increase awareness of the amphibians in Alberta, and to collect information on amphibian presence/absence. There are two components to this program: 1) volunteer-based data collection, and 2) intensive monitoring coordination.



The program's pilot project (run 1992-1994) was a success, with 265 individual amphibian reports from 17 volunteers, concentrated in southern Alberta (Powell et al. 1996). In 1996, 85 volunteers submitted information to the program, from all over Alberta. Ten species of amphibians were recorded including: Tiger salamanders (*Ambystoma tigrinum*), Long-toed Salamanders (*Ambystoma macrodactylum*), Plains Spadefoot Toads (*Scaphiopus bombifrons*), Western Toads (*Bufo boreas*), Great Plains Toad (*Bufo cognatus*), Canadian Toads (*Bufo hemiophrys*), Boreal Chorus Frogs (*Pseudacris triseriata*), Northern Leopard Frogs (*Rana pipiens*), Spotted Frogs (*Rana pretiosa*), and Wood Frogs (*Rana sylvatica*). Records came in from the north (Fort McMurray), south (Taber), east (St. Paul), and west (Jasper National Park).

There are many areas that need surveys. Natural Area Stewards are invited to participate in this program. How can you get involved? The procedure is simple:

1) Contact us for a free monitoring manual and tape.
2) Read the manual and listen to the tape, to familiarize yourself with Alberta's amphibians, and the data sheets.
3) Choose a site or sites to survey.
4) Go out and listen for frogs and toads calling.
5) Walk the study site and record evidence of amphibian presence (optional).
6) Fill in the data sheets (provided at the back of the manual), and send them in to us.
7) Repeat the surveys year to year (if possible).

If you would like more information and/or would like to participate in amphibian monitoring contact Lisa Takats at (403) 422-9536 or Bruce Treichel at (403) 422 - 9535 (toll free call 310 - 0000 and ask for one of the above numbers) or write to: The Alberta Amphibian Monitoring Program, Alberta Environmental Protection, Wildlife Management Division, 7th Floor O.S. Longman Building, 6909 - 116 Street, Edmonton, Alberta, T6H 4P2.

Literature Cited

Powell, G.L., K.L. Oseen, and A.P. Russell. 1996. Volunteer Monitoring in Alberta 1992-1994: the results of the pilot project, a preliminary examination. Alberta Environmental Protection, Fish and Wildlife Division. 77 pp.

Site Activities: February 1, 1997 to June 1, 1997

A Regular Feature to Keep Volunteer Stewards and Interested Individuals Informed of Activities Occurring On Our Sites

ALEXO (501): Metallic & Industrial Minerals permit application rejected.

ARMSTRONG LAKE (558): Wellsite rejected.

AURORA (466): Metallic & Industrial Minerals permit application rejected.

BAPTISTE LAKE (422): Metallic & Industrial Minerals permit application rejected.

BEAR LAKE (388): Metallic & Industrial Minerals permit application rejected.

BEAR RIVER (328): Metallic & Industrial Minerals permit application rejected; two seismic programs approved with conditions.

BETA LAKE (515): Seismic program approved with conditions.

BLACK FOX ISLAND (540): Metallic & Industrial Minerals permit application rejected.

BLEAK LAKE (526): One wellsite access permitted with conditions: one wellsite access and two wellsites rejected because of spring thaw; Metallic & Industrial Minerals permit application rejected.

BOYER (520): Metallic & Industrial Minerals permit application rejected.

BRAZEAU TUFA (467): Metallic & Industrial Minerals permit application rejected.

BRIDGE LAKE (48): Rejected county's request to burn brush on site.

CAMP CREEK (390): Metallic & Industrial Minerals permit application rejected.

CARIBOU RIVER (433): Metallic & Industrial Minerals permit application rejected.

CENTRE OF ALBERTA (545): Metallic & Industrial Minerals permit application rejected.

CHEDDERVILLE (130): Seismic program approved with conditions.

CHILD LAKE MEADOWS (536): Metallic & Industrial Minerals permit application rejected.

CLIFFORD E. LEE (525): Vegetation control permitted under powerline right of way.

COW LAKE (117): Seismic program approved with conditions.

COYOTE LAKE (275): Pipeline approved with conditions.

CROWSNEST(392): Seismic program approved with conditions.

CROWSNEST LAKE (225): Metallic & Industrial Minerals permit application rejected.

DEMMITT (339): Seismic program approved with conditions.

DUNVEGAN (21): Metallic & Industrial Minerals permit application rejected.

EAST PORCUPINE (417): Metallic & Industrial Minerals permit application rejected.

EMERSON CREEK (367): Metallic & Industrial Minerals permit application rejected.

FAIRVIEW (20): Metallic & Industrial Minerals permit application rejected.

FOURTH CREEK (503): Metallic & Industrial Minerals permit application rejected.

GARNER FEN (561): Metallic & Industrial Minerals permit application rejected.

GRAVE FLATS (436): Metallic & Industrial Minerals permit application rejected; logging access road rejected.

HALFMOON LAKE (213): Seismic program rejected.

HARPER CREEK (403): Metallic & Industrial Minerals permit application rejected.

HAWK HILLS (235): Metallic & Industrial Minerals permit application rejected.

HEART RIVER (570): Metallic & Industrial Minerals permit application rejected; seismic program approved with conditions.

HIGH ISLAND (544): Metallic & Industrial Minerals permit application rejected.

HINDVILLE (88): Grazing lease renewed.

HOLMES CROSSING (459): Licence of occupation approved for access road and wellsite ; Metallic & Industrial Minerals permit application rejected; seismic program approved with low impact conditions.

HONDO (341): Metallic & Industrial Minerals permit application rejected.

HOT POT (547): Metallic & Industrial Minerals permit application rejected.

HUBERT LAKE (563): Metallic & Industrial Minerals permit application rejected.

ISLE LAKE (127): Letter of authority approved for archery shoot.

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J.J. COLLETT (145): Amended recreation lease to include entire site.

JACKPINES (549): Metallic & Industrial Minerals permit application rejected.

KIMIWAN LAKE (497): Metallic & Industrial Minerals permit application rejected; grazing lease renewed for another 5 years.

KLESKUN CREEK (19): Metallic & Industrial Minerals permit application rejected.

KLESKUN HILL (7): Metallic & Industrial Minerals permit application rejected.

LAC LA BICHE (192): Metallic & Industrial Minerals permit application rejected.

LAC LA BICHE ISLAND (337): Metallic & Industrial Minerals permit application rejected.

LITTLE SMOKY IOSEGUN (257): Metallic & Industrial Minerals permit application rejected.

LLOYD CREEK (270): Access approved to cross portion of site.

MACINTOSH LAKE (542): Metallic & Industrial Minerals permit application rejected.

MITSUE LAKE (479): Metallic & Industrial Minerals permit application rejected.

MONITOR LAKE (97): Metallic & Industrial Minerals permit application rejected.

MOOSE LAKE ISLAND (168): Oil sands (tar sands) licence rejected.

MT. TECUMSEH (556): Seismic program approved with low impact conditions.

MUSKIKI LAKE (438): Metallic & Industrial Minerals permit application rejected.

NOEL LAKE (523): Metallic & Industrial Minerals permit application rejected.

NORTH RAM-NICE CREEK (462): Metallic & Industrial Minerals permit application rejected.

OLE BUCK MOUNTAIN (286): Seismic program approved with low impact conditions.

OPEN CREEK (279): Metallic & Industrial Minerals permit application rejected; seismic program approved with low impact conditions.

OTAUWAU (478): Metallic & Industrial Minerals permit application rejected.

OTAUWAU RIVER (531): Metallic & Industrial Minerals permit application rejected.

PEACE SMOKY ISLAND (261): Metallic & Industrial Minerals permit application rejected.

PINE SANDS (432): Metallic & Industrial Minerals permit application rejected.

POLICE POINT (492): Metallic & Industrial Minerals permit application rejected.

PONTON RIVER (521): Metallic & Industrial Minerals permit application rejected.

PONTON RIVER SOUTH (577): Metallic & Industrial Minerals permit application rejected.

POUCE COUPE (344): Seismic program approved with low impact conditions; Metallic & Industrial Minerals permit application rejected.

SAND LAKE (26): Seismic program approved with low impact conditions; Metallic & Industrial Minerals permit application rejected.

SASKATOON MOUNTAIN (420): Metallic & Industrial Minerals permit application rejected; miscellaneous lease approved for archery tournament and junior 3D tournament for August 16, 1997.

SAULTEAUX (477): Metallic & Industrial Minerals permit application rejected; licence of occupation for wellsite access road rejected.

SNAKES HEAD (278): Pipeline application approved with conditions.

SPRUCE ISLAND LAKE (396): Seismic program approved with low impact conditions; new well site and access was rejected.

ST. FRANCIS (276): Seismic program approved with low impact conditions.

STURGEON LAKE (218): Metallic & Industrial Minerals permit application rejected.

VEGA (430): Metallic & Industrial Minerals permit application rejected.

WATT MOUNTAIN (517): Metallic & Industrial Minerals permit application rejected.

WEST STONY CREEK (550): Seismic program approved with low impact conditions.

WHITE EARTH VALLEY (502): Licence of occupation and miscellaneous license approved for wellsites and access; seismic program approved with low impact conditions.

WHITECOURT (232): Metallic & Industrial Minerals permit application rejected.

WHITECOURT MOUNTAIN (528): Metallic & Industrial Minerals permit application rejected.

WOLF ISLAND (345): Metallic & Industrial Minerals permit application rejected.

Upcoming Events

Information from: Department of Natural Resources & Energy, New Brunswick; Red Deer River Naturalists Summer Outings, 1997 pamphlet; Alberta Native Plant Council, 1997 Field Trips brochures; Newsletter of the Alberta Native Plant Council (IRIS).

CONFERENCES

Natural Areas Association 24th Annual Conference "Bridging Natural and Social Landscapes."

Aug 27-30, 1997. Portland Oregon.

For more info contact:
Natural Areas Association
Attn: 1997 Conference Info
P.O. Box 23712
Tigard, OR 97281-3712

Annual Meeting of the Canadian Council on Ecological Areas "Protected Areas and the Bottom Line"

September 15-17, 1997
Lord Beaverbrook Hotel, Fredericton, NB.

The theme of the Sixteenth General Meeting of the Canadian Council on Ecological Areas (CCEA) is "Protected Areas and the Bottom Line". It will explore the relationship between protected areas, biological conservation and sustainable development, given the interdependence of the ecological and economic bottom line. The New Brunswick Department of Natural Resources and Energy is hosting the event, on behalf of the CCEA. The CCEA is a national, non-profit organization which is committed to establishing a network of ecological areas to protect Canada's terrestrial and aquatic diversity in perpetuity.

The conference objectives are to consider the ecological, cultural and economic role of protected areas in maintaining biodiversity and fostering sustainable development. It will also explore the options available to ensure that biodiversity values are addressed in policies, practices and standards related to land-use planning and natural resource management. These topics will be examined from theoretical and operational perspectives, including: global economic trends, forest & marine conservation, ecosystem management, public & corporate initiatives, and reconciling multiple values.

For more info contact:
1997 CCEA Conference
c/o Forest Recreation & Heritage Branch
Department of Natural Resources and Energy
P.O. Box 6000
Fredericton, New Brunswick, Canada E3B 5H1
Ph: 506-453-2730 Fax: 453-6630
http://www.gov.nb.ca/dnre/ccea.htm
E-mail: CCEA97@gov.nb.ca

FIELD TRIPS

Red Deer River Naturalists Summer Outings 1997

Tips: Each year from May to September the Red Deer River Naturalists invite the public to share their favourite natural areas. RDRN outings are informally led by an RDRN member and there are always people along who have an avid interest in some aspect of the environment.

For these summer outings all you need are a sturdy pair of walking shoes and clothing appropriate for the weather. You may also want to bring a flower or bird guide book, and a pair of binoculars. Whenever possible, field trips will involve car-pooling. On longer trips, participants are asked to share gasoline expenses.

July 30: The Clifford E. Lee Sanctuary awaits us just west of the Devonian gardens. Bring lunch, supper at Cornwal Cottage Tea Garden. Meet at 9:00 AM at the Co-op parking lot in Lacombe.

August 12: Meet at 5:30 PM at Slack Slough for a tour by the RDRN Bird Study Group of this interesting wetland. Please confirm with Maxine O'Riordan (347-4827) or Dorothy Hazlett (347-4751).

August 28: Enjoy the marvellous offering of Crimson Lake and Twin Lakes. We will see the beauty of plants in full seed. Meet at 9:00 AM at the south side of the Save-On-Foods parking lot. Bring lunch.

September 3: Dorothy Hazlett will take us on the Douglas Fir Trail, Edworthy Park and the Ingelwood Bird Sanctuary in Calgary. Meet at 9:00 AM at the Bluebird Motel in Innisfail. Bring lunch.

Except where stated, please confirm your attendance on these trips by calling Eileen Ford at 886-4905 at least three days prior to the trip date.

Continued ...

Return Address:
Recreation and Protected
Areas Division
9820 -106 Street
2nd Floor, Oxbridge Place
Edmonton, Alberta
T5K 2J6

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Alberta Native Plant Council Field Trips

Nisku Prairie - Summer Splendor
August 9, 1997 - Saturday

A half-day trip to the Nisku Prairie. Meet at 10 am at Nisku Prairie or at the Bay at Southgate at 9:30 am for car-pooling. For more information contact Birgit Friedenstab at 440-0971.

Upper Racehorse Creek - A Visit to Hidden Valley
August 9, 1997 - Saturday

Visit a hidden, scenic valley just north of the Crowsnest Pass. In August, the slopes leading into the valley are blue with the flowers of mountain gentian (*Gentiana calycosa*), the only known Alberta location outside of Waterton Lakes National Park. This is an opportunity to see a number of rare and unusual species including blue beardtounge (*Penstemon albertinus*) and large-flowered beardtounge (*Penstemon lyalli*).

Meet at 9:30 am at the Crowsnest Centre (off Hwy 3 near the hospital), Blairmore. Bring warm clothes and boots suitable for easy to moderate mountain hiking. For further information call Maryhelen Posey ([403] 646-5807, Nanton) or if she is unavailable, call Ross MacDonald ([403]563-5117, Crowsnest Pass).

3rd Annual Cardinal Divide Reclamation Weekend
August 23, 24, 1997

Come help reclaim a scenic alpine area impacted by vehicle use. Camping at Watson Creek or Whitehorse Creek campsites, or motel rooms available at Cadomin. Contact Elisabeth Beaubien (elisabeth.beaubien@ualberta.ca) or Patsy Cotterill (nutmeg@planet.eon.net) for more information.